Council on Postsecondary Education
November 4, 2002

Measuring Up 2002

In October, the National Center for Public Policy and Higher Education released *Measuring Up 2002*, the state-by-state report card on higher education. Kentucky was one of only two states to show improvement since 2000 in all five categories measured by the report card. The other was Utah.

The goal of the report card is to assist national and state leaders in assessing and addressing the challenges that face higher education in the 21st century. The report card measures state performance across five broad categories — preparation, participation, affordability, completion, and benefits — based on a wide range of nationally recognized indicators. The first report card was issued in 2000.

"Grades" for each category are assigned based on performance relative to top performing states in 2002. Kentucky's grades went up in three of the five categories: participation, completion, and benefits (see attachment). This indicates that while Kentucky's performance improved between 2000 and 2002 in all five categories, Kentucky lost ground compared to the top states in affordability and preparation.

In preparation, Kentucky was one of only seven states to improve in five categories highlighted in the report:

- young adults earning a high school diploma or GED by age 24
- 8th graders' proficiency in math
- low-income 8th graders' proficiency in math
- high school students taking and scoring well on college entrance exams
- high school students taking and scoring well on Advanced Placement tests

Despite this improvement, Kentucky's grade for preparation went down slightly, from a C in 2000 to a C- in 2002. Kentucky's performance shows that while educational reform at the elementary and secondary levels is working, more progress is necessary to place Kentucky among the top states in preparing students for college-level work.

In participation, Kentucky is one of only seven states that improved its performance on all measures of enrolling young and working-age adults in college-level education and training. Kentucky's largest gain was in the percentage of 25- to 49-year-olds enrolled part-time in postsecondary education. Kentucky's improved rating in this category (Kentucky received a C- in 2002, compared with a D in 2000) is one measure of the success of the council's efforts to increase enrollment by 80,000 students by 2015.

Many states, including Kentucky, received a lower grade for affordability in *Measuring Up 2002* than in *Measuring Up 2000*. Kentucky's grade changed from a B in 2000 to a C in 2002. Because grades measure how well a state performs compared to the top states, outstanding performance by a single state can result in lower grades for the others. California was the only state to receive an A in affordability in 2002.

While Kentucky's tuition rates remain affordable for a large segment of the population, *Measuring Up* reveals two areas of concern. First, there is a dramatic gap between Kentucky's performance and that of other states in the amount of need-based financial aid available. The amount of state need-based aid to low-income students in the top performing states exceeds the amount of aid they receive from the federal government. In Kentucky, the average state need-based grant is 38 percent of federal aid. Second, the 2002 version of the report card uses tuition data from 2000 to calculate affordability. Recent increases in tuition and declining family incomes may yield markedly lower affordability grades in 2004. Given the uncertain economic context, it is especially important that college remains affordable and that sufficient financial aid is available. It is unlikely that the council will be able to achieve its long-term enrollment and college-going goals if low-income families cannot afford postsecondary education.

Kentucky's completion grade rose from a C- in 2000 to a C in 2002. Retention rates at four-year institutions and graduation rates for students entering baccalaureate programs directly from high school both showed improvement since 2000. Improved performance in this category helps confirm that Kentucky's increased enrollment levels have not come at the cost of student persistence.

Kentucky showed improvement in several indicators in the benefits category, which seeks to measure enhancements of the quality of life in a state resulting from postsecondary education. The percentage of Kentuckians with a bachelor's degree rose between 2000 and 2002, as did the benefits accrued to the state's economy by higher educational attainment. Kentucky's grade in this category improved as well, rising from D in 2000 to C- in 2002.

In *Measuring Up 2002*, as in the 2000 version, all 50 states received a grade of "incomplete" in the sixth category, student learning. Since issuing the first report card, the National Center has worked to develop a set of measurements that will assess the "education capital" of knowledge and skills each state's population possesses. Kentucky was chosen as the prototype for this phase of the project. Over the past several months, members of the council staff have worked with institutions and staff from the National Center to evaluate the data available for Kentucky and to begin to construct a set of indicators for the student-learning grade. In his foreword, James Hunt, chair of the National Center, praises Kentucky for its willingness to provide "national leadership in a key area of higher education reform."

An essay in the 2002 report card describes this effort and outlines initial student learning results for Kentucky. The National Center used data from Kentucky to construct sample scores for indicators measuring the abilities of college educated residents, institutional contributions to educational capital, the quality of educational outcomes in the state, and the prevalence of good practices in undergraduate education. The conclusions the report draws from the available data are mixed. College-educated Kentuckians have high verbal literacy levels, but lag in quantitative

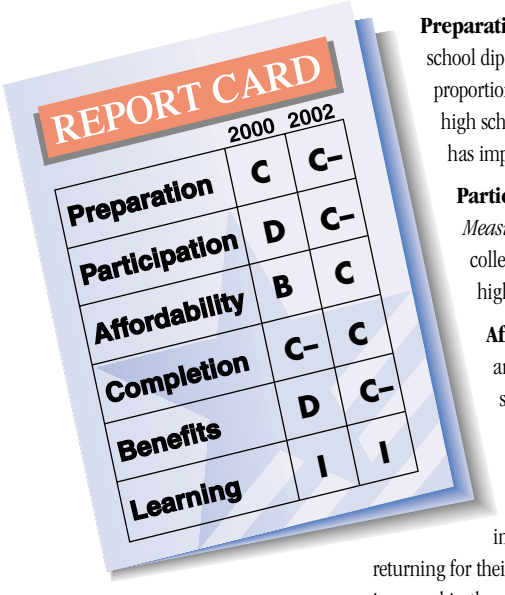
literacy. Kentucky's quality of practice in undergraduate education (measured by results from the National Survey of Student Engagement) approaches the national average. Compared with the national average, few students in Kentucky take competitive entrance exams required for graduate study. As is acknowledged in the report, the National Center was constrained by the data available; these results should be considered preliminary.

From 2002 to 2004, Kentucky will be one of six or seven pilot states gathering a more extensive set of student learning data for the 2004 report card. Kentucky will host a meeting of the pilot states early in 2003.

The following pages provide a more detailed explanation of *Measuring Up 2002* and Kentucky's data. For the full report on all 50 states, go to www.highereducation.org.

Staff preparation by Christina Whitfield

KENTUCKY



Preparation: Improvement since *Measuring Up 2000* – Lower Grade. The proportion of Kentucky's young adults earning a high school diploma or a General Education Development (GED) diploma by age 24 has improved since *Measuring Up 2000*. A very high proportion of high school students enroll in upper-level math. However, the percentage of 8th graders taking algebra and the percentage of high school students taking upper-level science have dropped since the earlier report. The math proficiency of 8th graders remains poor but has improved notably. Because of other states' greater improvements in this category, Kentucky's grade has dropped.

Participation: Improvement since *Measuring Up 2000* – Higher Grade. Kentucky improved in this category since *Measuring Up 2000*, but its performance is fair when compared with other states. A slightly higher proportion of students enroll in college immediately after high school. A higher proportion of young adults (ages 18 to 24) are enrolled in college-level education. And a higher percentage of working-age adults (ages 25 to 49) are enrolled part-time in education or training beyond high school.

Affordability: Improvement since *Measuring Up 2000* – Lower Grade. Since *Measuring Up 2000*, Kentucky families are spending less of their income, after financial aid, to attend the state's public and private four-year colleges and universities. The state remains in very good standing in the share of family income required to attend community college, and has improved in need-based financial aid provided to low-income families. Because of other states' greater improvements, however, Kentucky's grade has dropped.

Completion: Improvement since *Measuring Up 2000* – Higher Grade. Kentucky's performance in completion has improved since *Measuring Up 2000*, but remains fair. A larger proportion of freshmen at four-year colleges and universities are returning for their sophomore year, but a smaller proportion of first-year students at two-year colleges are returning for their second year. Kentucky has improved in the proportion of first-time, full-time college students earning their bachelor's degree within five years of completing high school. Also a larger proportion of undergraduate students are completing certificates and degrees relative to the number enrolled.

Benefits: Improvement since *Measuring Up 2000* – Higher Grade. Since the 2000 report, the proportion of Kentucky residents with a bachelor's degree has increased, and the state's economy has benefited. Kentucky residents contribute substantially to the civic good, as measured by charitable contributions and the percentage of residents who vote. Overall, Kentucky's performance is fair in this category.

Learning. Based on available information on student learning, it is not possible to make systematic state-by-state comparisons.

KENTUCKY

PREPARATION C–

HIGH SCHOOL COMPLETION (20%)	*Kentucky 2000*	*Kentucky 2002*	*Top States 2002*
18- to 24-year-olds with a high school credential	85%	86%	94%
K–12 COURSE TAKING (40%)			
9th to 12th graders taking at least one upper-level math course	50%	53%	57%
9th to 12th graders taking at least one upper-level science course	34%	29%	39%
8th grade students taking Algebra	17%	12%	30%
12th graders taking at least one upper-level math course	–	n/a	56%
K–12 STUDENT ACHIEVEMENT (40%)			
8th graders scoring at or above "proficient" on the national assessment exam:			
in math	16%	21%	34%
in reading	29%	29%	38%
in science	–	29%	42%
in writing	21%	21%	31%
Low-income 8th graders scoring at or above "proficient" on the national assessment exam in math	4%	8%	21%
Number of scores in the top 20% nationally on SAT/ACT college entrance exam per 1,000 high school graduates	130	137	201
Number of scores that are 3 or higher on an Advanced Placement subject test per 1,000 high school juniors and seniors	50	69	197

Change over Time: In Kentucky from 1990 to 2000, the proportion of high school students taking upper-level math courses increased from 35% to 53%. ***Gaps in Data:*** The data marked n/a are not available.

PARTICIPATION C–

YOUNG ADULTS (60%)	*Kentucky 2000*	*Kentucky 2002*	*Top States 2002*
High school freshmen enrolling in college within 4 years in any state	36%	37%	54%
18- to 24-year-olds enrolling in college	31%	33%	41%
WORKING-AGE ADULTS (40%)			
25- to 49-year-olds enrolled part-time in some type of postsecondary education†	2.4%	2.8%	5.4%

†*Data for* Measuring Up 2000 *are for 25- to 44-year olds.*

Change over Time: In Kentucky from 1989 to 1999, the proportion of 18- to 24-year-olds enrolled in college increased from 24% to 33%.

AFFORDABILITY C

FAMILY ABILITY TO PAY (50%)	*Kentucky 2000*	*Kentucky 2002*	*Top States 2002*
Percent of income (average of all income groups) needed to pay for college expenses minus financial aid:			
at community colleges	17%	17%	16%
at public 4-year colleges/universities	21%	19%	18%
at private 4-year colleges/universities	44%	40%	32%
STRATEGIES FOR AFFORDABILITY (40%)			
State grant aid targeted to low-income families as a percent of federal Pell Grant aid to low-income families	33%	37%	108%
Share of income that poorest families need to pay for tuition at lowest priced colleges	14%	13%	8%
RELIANCE ON LOANS (10%)			
Average loan amount that undergraduate students borrow each year‡	$3,327	$2,987	$2,928

‡*Data for* Measuring Up 2000 *include all students, not just undergraduates.*

Note: In the Affordability category, the lower the figures the better the performance for all indicators except for "State grant aid . . . as a percent of federal Pell Grant aid."

INCOME GROUPS USED TO CALCULATE 2002 FAMILY ABILITY TO PAY

Percent of family income needed to pay for college expenses minus financial aid:	at community colleges	at public 4-year colleges/universities	at private 4-year colleges/universities
for 20% of the population with the lowest income	40%	43%	102%
for 20% of the population with lower-middle income	20%	21%	44%
for 20% of the population with middle income	13%	15%	27%
for 20% of the population with upper-middle income	8%	10%	17%
for 20% of the population with the highest income	5%	6%	11%

Note: Data are from 2000–01.

COMPLETION | C

	Kentucky 2000	*Kentucky 2002*	*Top States 2002*
PERSISTENCE (20%)			
1st year community college students returning their 2nd year	57%	51%	63%
Freshmen at 4-year colleges/universities returning their sophomore year	70%	71%	83%
COMPLETION (80%)			
First-time, full-time students completing a bachelor's degree within 5 years of high school completion	37%	43%	66%
First-time, full-time students completing a bachelor's degree within 6 years of college entrance	–	38%	61%
Certificates, degrees and diplomas awarded at all colleges and universities per 100 undergraduate students	15	15	21

BENEFITS | C–

	Kentucky 2000	*Kentucky 2002*	*Top States 2002*
EDUCATIONAL ACHIEVEMENT (30%)			
Population aged 25 to 65 with bachelor's degree or higher	20%	22%	35%
ECONOMIC BENEFITS (25%)			
Increase in total personal income as a result of the percentage of the population holding a bachelor's degree	6%	7%	12%
Increase in total personal income as a result of the percentage of the population with some college (including an associate's degree), but not a bachelor's degree	–	3%	4%
CIVIC BENEFITS (25%)			
Residents voting in 1998 and 2000 national elections	49%	50%	60%
Of those who itemize on federal income taxes, the percentage declaring charitable gifts	87%	85%	92%
ADULT SKILL LEVELS (20%)			
Adults demonstrating high-level literacy skills:			
quantitative	n/a	n/a	28%
prose	n/a	n/a	28%
document	n/a	n/a	26%

Gaps in Data: The data marked n/a are not available because Kentucky declined to participate in the survey.

LEARNING | I

Indicators in italics are new for 2002.

*Data from *Measuring Up 2000* were used because updated state information was not available.

Need more information? For an explanation of grading see page 189. For source information about each indicator, see page 186. For more state information (State Context, Leading Indicators, Facts and Figures, etc.) or technical information, visit the Web site for *Measuring Up* at www.highereducation.org.

ON-LINE

Measuring Up 2002: The State-by-State Report Card for Higher Education On-line

This Web site allows you to make your own comparisons of state performance in higher education. Users can select from over 30 indicators of higher education performance and state characteristics (state's population, the size of its economy, its system of higher education, and more) that are helpful in providing a context for understanding performance.

Visit the National Center's home page at www.highereducation.org to:

- Compare any state with best performing states in each performance category.
- Compare states on their grades and indicator results in each performance category.
- Compare states on their improvement since *Measuring Up 2000.*
- Compare states on contextual information (state demographic and economic characteristics, and more).
- Compare the gaps in performance among ethnic groups.
- Download all or parts of *Measuring Up 2002.*
- Link directly to the sources of data.
- Obtain technical information for indicators, weights, and calculations.
- Find out more about the National Center for Public Policy and Higher Education.

QUESTIONS AND ANSWERS ABOUT MEASURING UP 2002

Who is being graded in this report card, and why?
Measuring Up 2002 grades states—not individual colleges and universities—on their performance in higher education. The states are responsible for preparing students for higher education through sound K–12 systems, and they provide most of the public financial support—$64 billion in 2001—for colleges and universities. Through their oversight of public colleges and universities, state leaders affect the number and kinds of education programs in the state. They determine the limits of financial support and often influence tuition and fees for public colleges and universities. They determine how much state financial aid to make available to students and their families, which affects students attending public and private colleges and universities. And state economic development policies influence the income advantage that residents receive from having some college experience or a college degree.

Why is a state-by-state report card needed for higher education?
Measuring Up provides state leaders with objective information they need to assess and improve higher education. After the publication of *Measuring Up 2000* two years ago, state leaders for the first time could objectively assess comparative information on state performance in higher education—information that helps identify the strengths and weaknesses of higher education in their state. Many state leaders have used this information as a starting point to gather additional performance information about higher education in their state, and to build support for improvements in higher education.

This newest report card on higher education (1) provides state leaders with a picture of the strengths and weaknesses of higher education in their state in relation to other states, and (2) identifies areas of improvement or decline since the last report card.

Who is this report card for?
Measuring Up was developed for governors, legislators, and other state officials charged with responsibility for higher education. It is also made available to higher education leaders, business leaders, the media, and members of the general public who care about the performance of higher education.

What is graded in the report card?
The report card grades states in six performance categories: academic preparation, participation, affordability, completion, benefits, and student learning.

Preparation measures how well a state's K–12 schools prepare students for college-level education and training. The opportunities that residents have to enroll in and benefit from higher education depend heavily on the performance of their state's high schools.

Participation addresses the opportunities for state residents to enroll in higher education. A strong grade in participation generally indicates that the state residents have high individual expectations for education and that the state provides enough spaces and types of educational programs for its residents.

Affordability measures whether students and families can afford to pay for higher education, given economic circumstances, financial aid, and the types of colleges and universities in the state.

Completion addresses whether students continue through their educational programs and earn certificates or degrees in a timely manner. Certificates and degrees from one- and two-year programs as well as the bachelor's degree are included.

Benefits includes the economic and societal benefits that the state receives as the result of having well-educated residents.

Learning is intended to address the level of educational capital that states possess as a result of their policies for education and training beyond high school. High performance in this category would indicate that states are developing talent to its fullest.

Why do all the states receive an Incomplete for their performance in student learning?
Measuring Up 2000 gave all states an Incomplete in student learning because there are no common benchmarks for student learning that would allow meaningful state-by-state comparisons. This year, *Measuring Up 2002* likewise gives all states an Incomplete in this area, for the same reason. However, recent efforts to develop better measures of college-level learning are promising (for more information, please see "A Message from Governor Paul Patton," page 18, "*Measuring Up* and Student Learning," page 69, and "Grading Student

WHAT'S NEW IN MEASURING UP 2002

There are two elements of state progress provided in *Measuring Up 2002*: grades and "Improvement since *Measuring Up 2000*" (for results, see the National Picture section, pages 24–34).

Grades measure a state's performance in relation to other states. An improvement in a state's grade shows that the state performed better compared to other states.

"Improvement since *Measuring Up 2000*" measures a state's progress in relation to its own previous results. This measure compares each state's results on the indicators in *Measuring Up 2000* to its results in *Measuring Up 2002*. If a state is described as making "improvement" in a performance category, then it made progress on the majority of indicators in that category.

NEW INDICATORS*

Preparation

K–12 Course Taking

12th graders taking at least one upper-level math course

K–12 Student Achievement

8th graders scoring at or above "proficient" on the national assessment exam in science

Completion

Completion

First-time, full-time students completing a bachelor's degree within 6 years of college entrance

Benefits

Economic Benefits

Increase in total personal income as a result of the percentage of the population with some college (including an associate's degree), but not a bachelor's degree

REVISED INDICATORS†

Participation

Working-Age Adults

25- to 49-year-olds enrolled part-time in some type of postsecondary education (previous definition included 25- to 44-year-olds)

Affordability

Reliance On Loans

Average loan amount that undergraduate students borrow each year (previous definition included all students rather than undergraduate students only)

* The weights of indicators within performance categories have been adjusted slightly to accommodate these new indicators.

† For detailed information on changes to these indicators, changes in calculating indicators, and other definitional issues, see Technical Guide: Documenting Methodology, Indicators, and Data Sources for Measuring Up 2002 at www.highereducation.org.

Learning," page 73). The degree to which students' skills and abilities are improved as a result of states' policies for education and training beyond high school is perhaps the most important criterion for measuring state performance in higher education. The Incomplete in learning highlights a gap in our ability to make systematic state-by-state comparisons in this area.

How are states graded?

States receive grades in each performance category. Each performance category is made up of several indicators or quantitative measures—a total of 34 in the five categories. Grades are calculated based on each state's performance on these indicators, relative to other states (see page 23).

What information is provided but not graded?

The State Profiles provide important information that is not graded—either because the data are not available for all the states or because the information, though useful, is not based on performance outcomes. For instance, the State Profiles highlight gaps in state performance in providing opportunities for various income and ethnic groups, and they identify substantial changes in state performance over the last ten years.

In addition, the "Improvement since *Measuring Up 2000*" information summarized in the National Picture section (pages 30–34), shows which states have improved their results in each performance category in the data years 1998 to 2000, and which states have not improved their results. This progress, while useful in tracking change within each state, is not included in grading.

Additional information—for instance, the state's population, the size of its economy and its system of higher education—that is helpful in providing a context for understanding performance is provided on the National Center's Web site at www.highereducation.org.

What sources of information are used to determine the grades?

All the information in *Measuring Up 2002* was collected from national, reliable sources, including the U.S. Census and the U.S. Department of Education. All data are the most current available for state-by-state comparisons (in most cases from 2000), are in the public domain, and were collected in ways that allow effective comparisons among the states. The technical guide (available at www.highereducation.org) has information about sources for each indicator.

What do you mean by "higher education"?

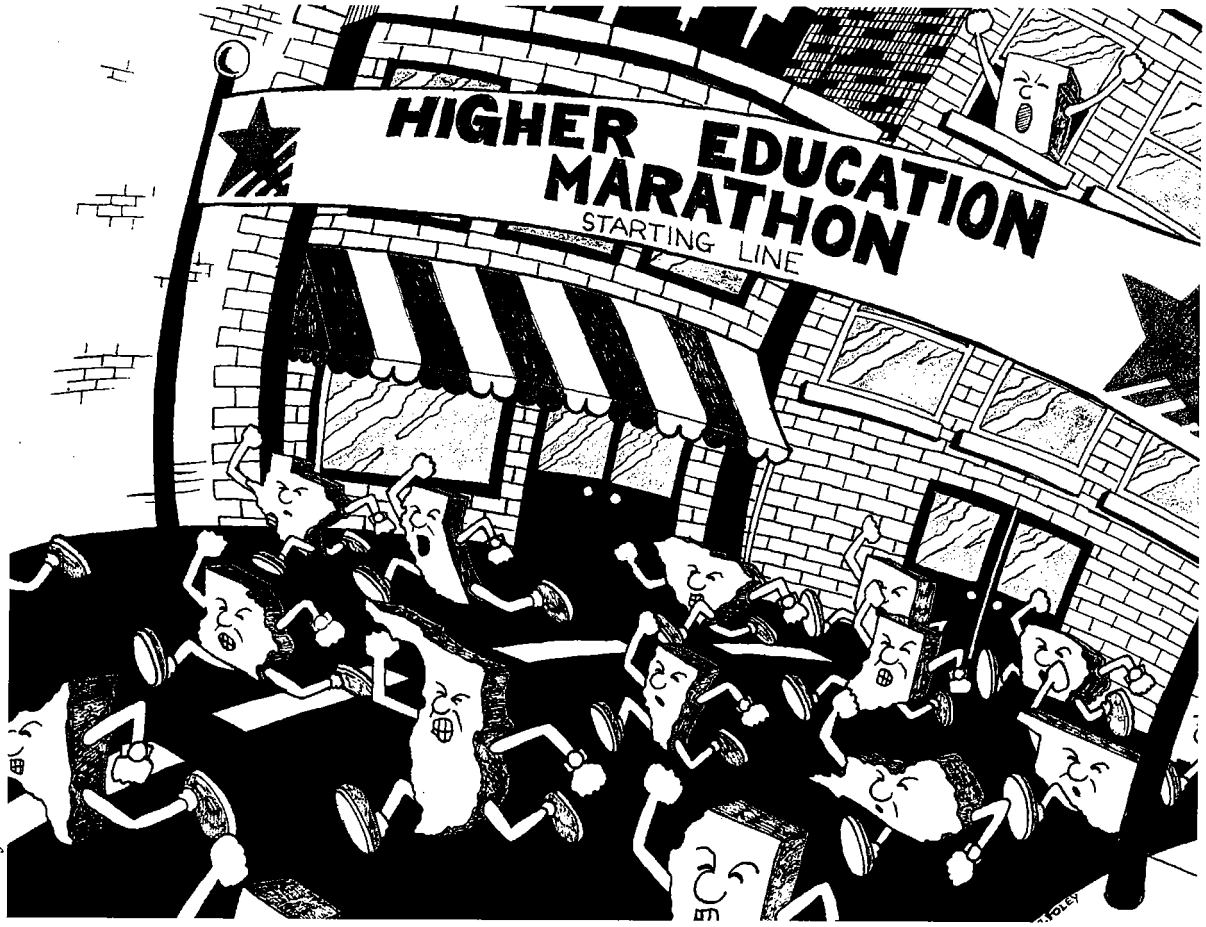
Higher education refers to all education and training beyond high school, including all public and private, two- and four-year, nonprofit and for-profit institutions.

Why are private institutions included in the report card?

Measuring Up provides states with an overall picture of their performance in higher education. Since private colleges and universities play a crucial role in providing opportunity and helping students achieve their educational goals, state higher education policy should be responsive to the opportunities offered by private institutions. Most states provide financial aid for students who enroll in either public or private colleges and universities; some states provide direct support to their private colleges. *Measuring Up* documents the effects these state policies have on opportunity for and achievement in higher education in the state.

Do states receive "credit" for effort or for facing difficult economic or educational circumstances?

No. The grades are based solely on performance. Since we base performance on outcome measures, states do not receive credit for effort or for facing difficult economic or educational



Tim Foley

circumstances, only for results. On the National Center's Web site, however, "leading indicators" are provided in State Profiles, including economic projections and societal measures, to identify some of the long-term policy challenges facing the state.

Does *Measuring Up* take into account new state policies that have recently been introduced?
Measuring Up reports on performance and changes in performance. New state policies often do not change performance immediately. As these policies influence state results, changes will be reflected in the indicators and grades.

Is it possible for a state to receive a higher grade but to make "No Improvement since *Measuring Up 2000*"?
Yes. Since grades measure how states perform relative to other states, a state's grade can improve or drop depending upon the performance of other states—even if its own results on the indicators, or performance measures, remain constant or decline.

Does the report card grade on a curve?
No. Grades are calculated by comparing each state to the best-performing states for each indicator.

What grading scale is used?
As shown in "How We Grade States," the grades are based on the familiar 100-point scale: An "A" represents a score of 90 or above, and an "F" represents a score below 60 (see page 23).

Why do we include both five-year and six-year bachelor's degree completion?
The five-year degree completion indicator refers to first-time, full-time students completing a bachelor's degree within five years of finishing high school, whereas the six-year indicator refers to first-time, full-time students completing a bachelor's degree within six years of enrolling in college. The six-year measure refers to all students, not just recent high school students entering college.

Does the report card use data unique to a particular state?
Measuring Up 2002 uses data that are comparable for all the states. As a result, some states may find that their own internal data present a fuller picture of the state's strengths and weaknesses in higher education. The National Center encourages states to add their own data to the report card's categories to create a more detailed picture of state performance.

What happens if data are missing for a state?
When information is not available on a particular indicator, we assume, for the purposes of grading, that a state is doing no better or worse on that particular indicator than it is on the other indicators in that performance category.

However, the report card uses the most recent data available. In the event that a state has reported data in *Measuring Up 2000*, but not in *Measuring Up 2002*, the data from *Measuring Up 2000* are used since they are the most recent data available for state-by-state comparisons.

Are there some sources that have not updated their data since the last report card?
Yes. For instance, in relation to the preparation category, the National Assessment of Educational Progress (NAEP) conducts surveys regularly but has not conducted surveys in reading and writing proficiency since *Measuring Up 2000.* Therefore, these indicator results remain unchanged. Also, in relation to the benefits category, the National Adult Literacy Survey (NALS) is now being administered as the National Assessment of Adult Literacy (NAAL), but its results are not yet available. For these indicators, results from the previous edition of the report card are reported in this edition as well.

To what extent do the grades reflect the wealth or the race and ethnicity of the state's population?
An independent analysis of *Measuring Up 2000* data showed that factors like wealth and economic vitality had about a 25% influence on grades, and that race and ethnicity had about a 10% influence. (See A Review of Tests Performed on the Data in *Measuring Up 2000*, by Peter Ewell, available at www.highereducation.org.)

How does the report card account for the migration of people across state lines?
Migration affects two of the performance categories: participation and benefits. One of the indicators in the participation category accounts for the migration of young people, but the other indicator, due to limitations in the collection of the data, does not. To provide a context for the grades in participation, please see net migration for each state reported in the State Profiles section of *Measuring Up 2002* on the National Center's Web site (www.highereducation.org). In the benefits category, states receive credit for having an educated population since states reap the economic and societal rewards whether or not residents received their education in that state. With the exception of the benefits category, all other graded performance categories recognize states for developing rather than importing talent.

Does the report card evaluate graduate education and research?
No. Colleges and universities perform many valuable functions besides those measured in *Measuring Up 2002*, including research, graduate and professional education, public service, and economic development. *Measuring Up* focuses on education and training through the bachelor's degree because this is an area where all states have major policy responsibilities whether or not they have substantial commitment to other higher education functions. Systematic measures for the evaluation of research and graduate education are already available on a national basis.

How frequently are the report cards published?
Every two years. The next report cards will be released in 2004 and 2006.

How can I find out more about the report card or about my state's performance?
Visit the National Center's Web site at www.highereducation.org to:

- Compare any state with the best-performing states in each performance category.
- Compare states on their grades and indicator results in each performance category.
- Compare states on their improvement since *Measuring Up 2000.*
- Compare states on contextual information (such as demographic indicators and higher education appropriations).
- Identify gaps in state performance for ethnic and income groups.
- Download all or parts of *Measuring Up 2002.*
- Link directly to the sources that gathered the data.
- Obtain technical information for indicators, weights, and calculations.
- Find out more about the National Center for Public Policy and Higher Education.